

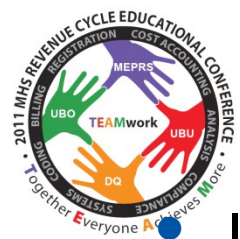
Title: **Optometry & Ophthalmology Coding**

Session: **T-3-1630**



Overview

- Visual Field Testing
- Color Vision Testing
- Sensorimotor Testing
- Corneal Topography
- Ocular Photography
- Extended Ophthalmoscopy



Visual Fields - Potential Diagnoses

ICD-9

- 368.40: Visual field defect, unspecified
- 368.41: Scotoma involving central area
- 368.42: Scotoma of blind spot area
- 368.43: Sector of arcuate defects
- 368.44: Other localized visual field defect
- 368.45: Generalized contraction or constriction
- 368.46: Homonymous bilateral field defects
- 368.47: Heteronymous bilateral field defects

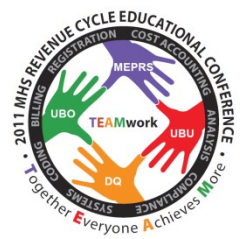
• ICD-10

- H53.40 Unspecified visual field defects
- H53.411- H53.419: Scotoma involving central area
- H53.421 - H53.429: Scotoma of blind spot area
- H53.431 - H53.439: Sector or arcuate defects
- H53.451 - H53.459: Other localized visual field defect
- H53.461 - H53.469: Homonymous bilateral field defects
- H53.47: Heteronymous bilateral field defects
- H53.481 - H53.489: Generalized contraction of visual field



Visual Field Terminology

- **Perimetry:** A test in which a topographic 'map' is created of the visual field, to diagnose and evaluate diseases of optic nerve, retina, and neuroophthalmic Goldmann perimetry; uses both stationary-static light sources of increasing intensity and moving light sources to delineate the visual field, defects of which can be either central or peripheral
 - McGraw-Hill Concise Dictionary of Modern Medicine. © 2002 by The McGraw-Hill Companies, Inc.; <http://medical-dictionary.thefreedictionary.com/perimetry> 1/27/11
- **Static perimetry:** Measurement of the visual field with a target that can be varied in dimension and luminance. The target can be presented in any part of the visual field
 - Millodot: Dictionary of Optometry and Visual Science, 7th edition. © 2009 Butterworth-Heinemann; <http://medical-dictionary.thefreedictionary.com/perimetry> 1/27/11
- **Isopter:** In the determination of visual fields, it is the contour line representing the limits of equal retinal sensitivity to a given test target
 - Millodot: Dictionary of Optometry and Visual Science, 7th edition. © 2009 Butterworth-Heinemann; <http://medical-dictionary.thefreedictionary.com/isopter> 1/27/11

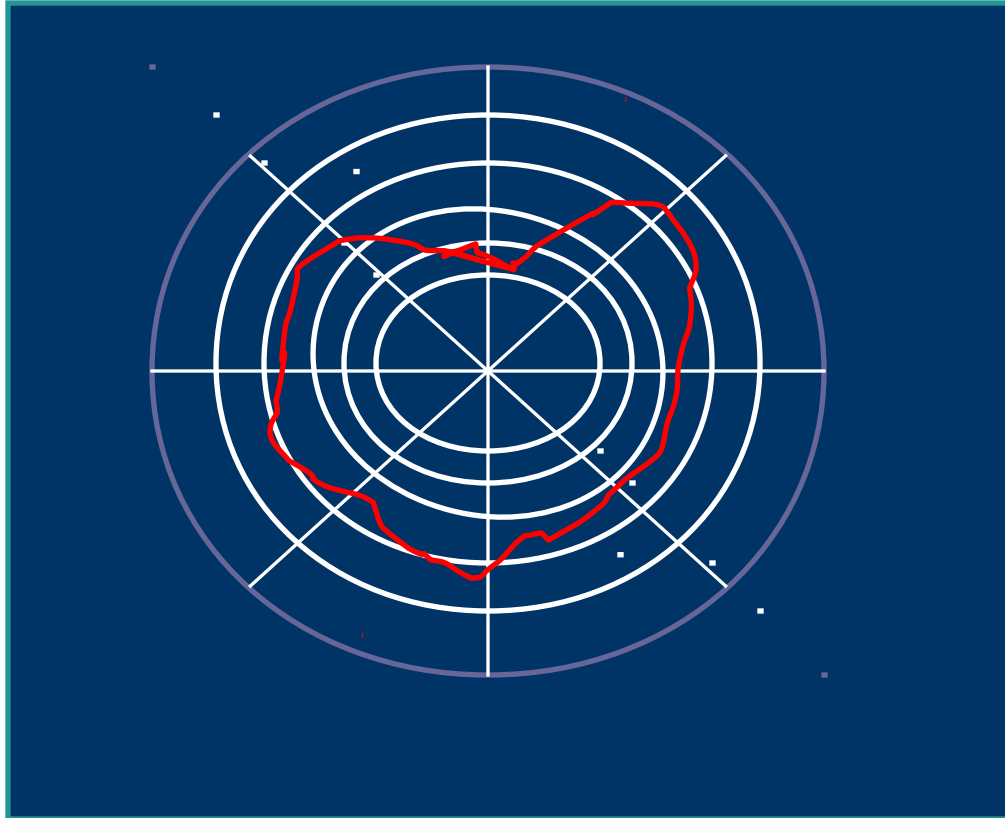


Limited Visual Field Exam

92081: Visual field examination, unilateral or bilateral, with interpretation and report; limited examination (e.g., tangent screen, Autoplot, arc perimeter, or single stimulus level automated test, such as Octopus 3 or 7 equivalent)



Tangent Screen Visual Field



Limited Visual Field

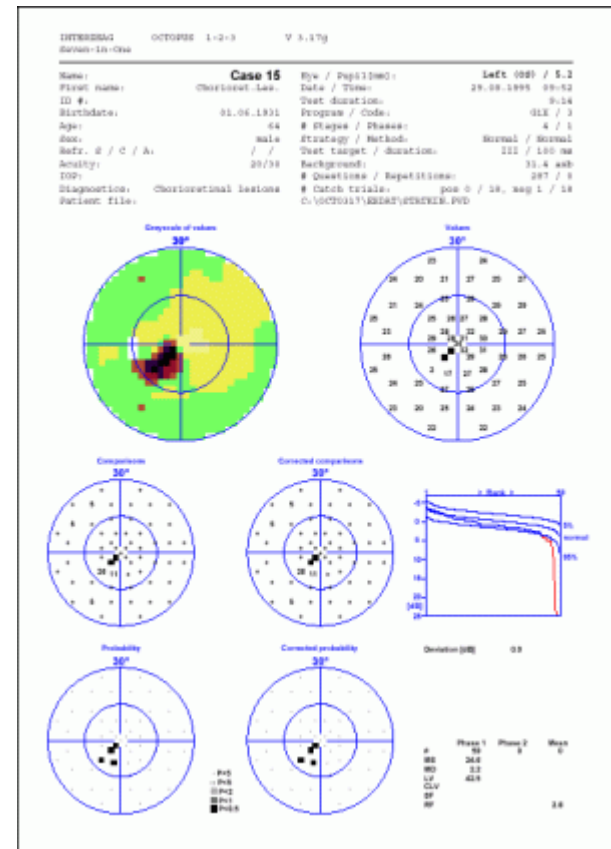
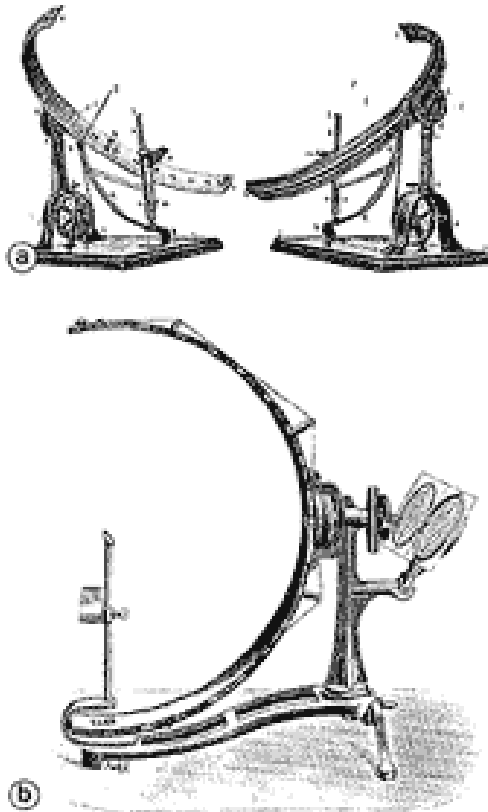
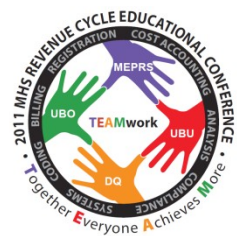


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<http://webeye.ophth.uiowa.edu/ips/PerimetryHistory/3-perimeter.htm>
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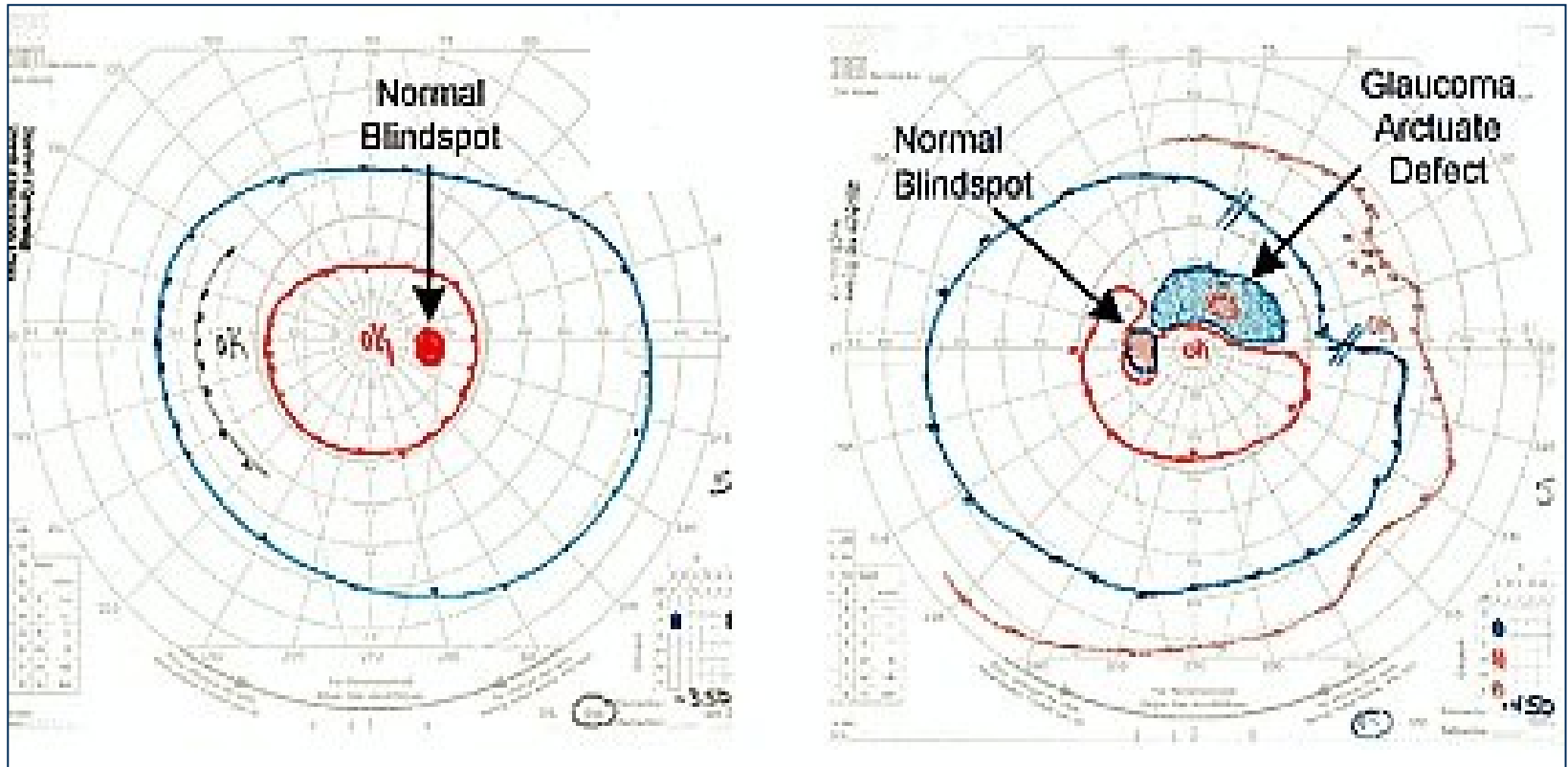
<http://www.hudsoneyemd.com/images/Octopus%20visual%20field.gif>
 1/28/11



Intermediate Visual Field Exam

92082: Visual field examination, unilateral or bilateral, with interpretation and report, intermediate examination (e.g., at least 2 isopters on Goldmann perimeter, or semiquantitative, automated suprathreshold screening program, Humphrey suprathreshold automatic diagnostic test, Octopus program 33)

Intermediate Visual Field



<http://www.glaucoma-eye-info.com/images/Perimeter-chart.gif>
 1/28/11



Extended Visual Field Exam

92083: Visual field examination, unilateral or bilateral, with interpretation and report, extended examination (e.g., with at least 3 isopters plotted and static determination within the central 30 degrees, or quantitative, automated threshold perimetry, Octopus program G-1, 32, or 42, Humphrey visual field analyzer full threshold programs 30-2, 24-2, or 30/60-2)

Goldmann Visual Field



Image Source Page:
<http://www.ssc.education.ed.ac.uk/courses/VI&multi/vnov072i.html>

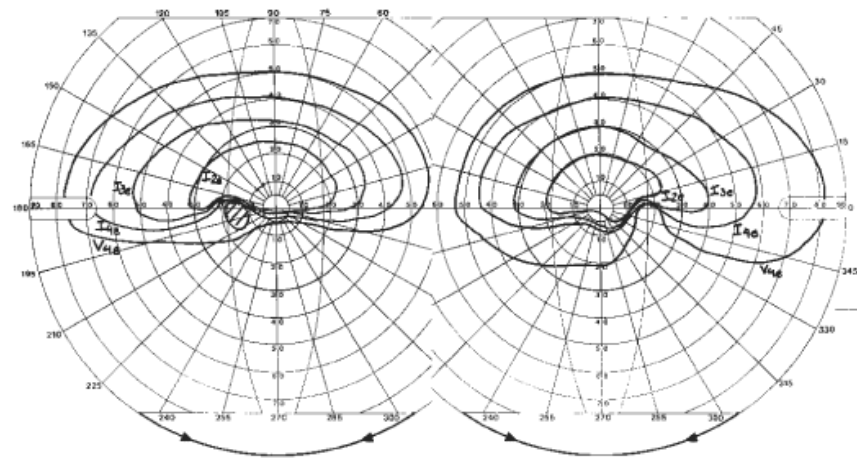


Figure 2 - Goldmann visual field showing severe inferior visual field defect in both eyes.

Image Source Page:
http://www.scielo.br/scielo.php?script=sci_arttext&pid=s1807-59322006000500018

Humphrey Visual Field



Image Source Page:
<http://www.ammayieyehospital.com/special-eye-care-facilities.html>

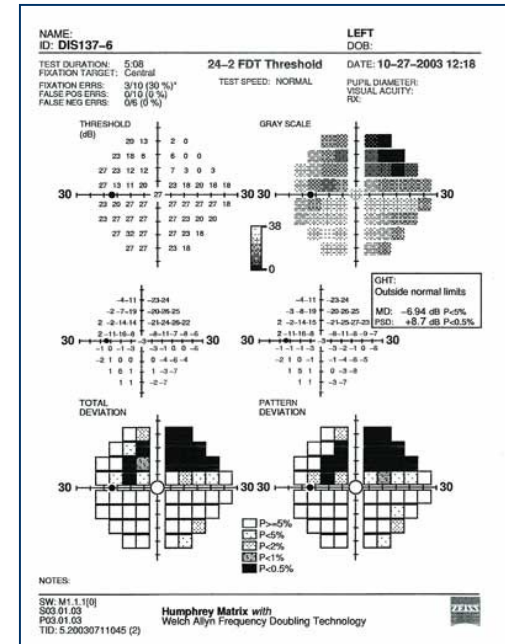
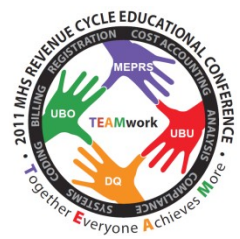
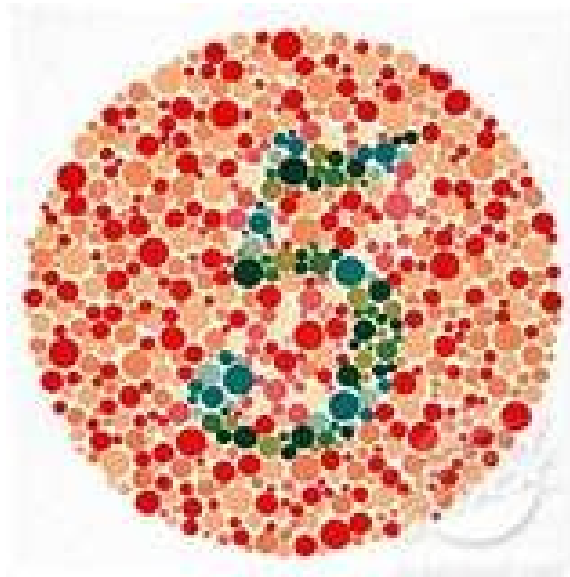


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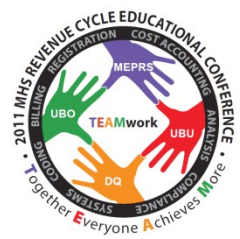
Documenting Visual Field Exams

- **5.1.3. Documentation Requirements for All Procedural Interpretation and Report**
 - Although the interpretation does not have to be a separate page, the summary of the findings must contain sufficient detail that a conclusion of the significance of the findings can be made.
 - Documentation must include a descriptive summary. Simply clicking the procedure in AHLTA is not adequate documentation to support coding of a procedure.
- What would be appropriate documentation?
 - Copy of visual field report from device
 - Provider's interpretation of device report/printout in AHLTA, including noteworthy findings, reliability of test, changes from prior visual field exam



<http://www.superstock.com/stock-photos-images/1597-2/1/11>

Color Vision



Color Vision - Potential Diagnoses

- ICD-9

- 368.51: Protan Defect
- 368.52: Deutan Defect
- 368.53: Tritan Defect
- 368.54: Achromatopsia
- 368.55: Acquired color vision deficiencies
- 368.59: Other color vision deficiencies

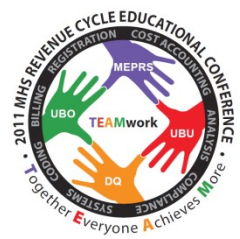
- ICD-10

- H53.50: Unspecified color vision deficiencies (Color blindness NOS)
- H53.51: Achromatopsia
- H53.52: Acquired color vision deficiency
- H53.53: Deuteranomaly
- H53.54: Protanomaly
- H53.55: Tritanomaly
- H53.59: Other color vision deficiencies

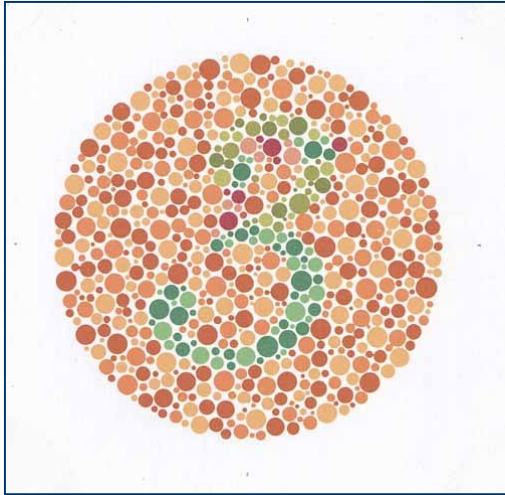


Color Vision Testing

- 92283: Color vision examination, extended, e.g., anomaloscope or equivalent
 - Color vision testing with pseudoisochromatic plates (such as HRR or Ishihara) is not reported separately. It is included in the appropriate general or ophthalmological service, or 99172.
- 99172: Visual function screening, automated or semi-automated bilateral quantitative determination of visual acuity, ocular alignment, color vision by pseudoisochromatic plates, and field of vision (may include all or some screening of the determination(s) for contrast sensitivity, vision under glare)
 - This service must employ graduated visual acuity stimuli that allow a quantitative determination of visual acuity (e.g., Snellen chart). This service may not be used in addition to a general ophthalmological service or an E/M service



Color Vision Testing



Ishihara (PIP) Test

Image Source Page:
http://www.robinsonscamera.com/color_blindness_test.htm
 1/27/11



Image Source Page:
<http://www.utexas.edu/nursing/simlab/html/picture/index.html>
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Image Source Page:
<http://www.caleyecare.org/visionfunctions.html> 1/27/11

Color Vision Testing



Figure 24. Farnsworth Panel D-15.

Image Source Page:
<http://webvision.med.utah.edu/KallColor.html>

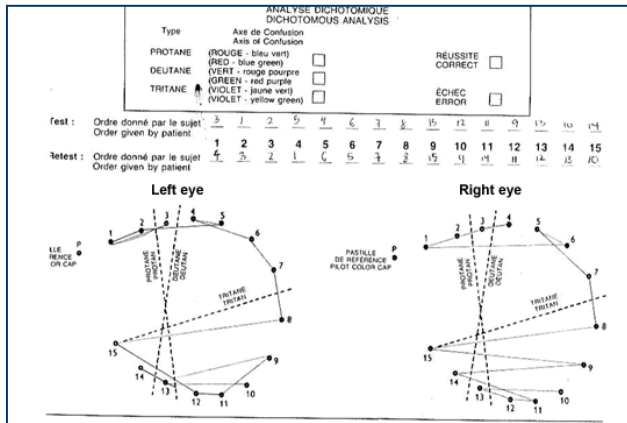


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http://www.e-mfp.org/2008v3n2/Ethambutol_ocular_toxicity2.html

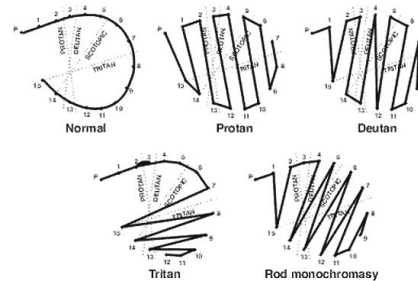
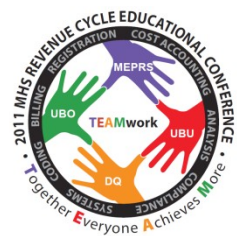


Figure 25. The Farnsworth Panel D-15 results from patients with various colour vision defects. The rod monochromatic results are idealised to illustrate the scotopic axis along 5-14. As a rule, rod monochromats give variable results with a tendency of crossing errors to fall along the 5-14 axis.

Image Source Page:
<http://retina.umh.es/webvision/kallcolor.html>



Image Source Page: <http://www.imbotec.com/products/126/>



Color Vision Testing - Anomaloscope

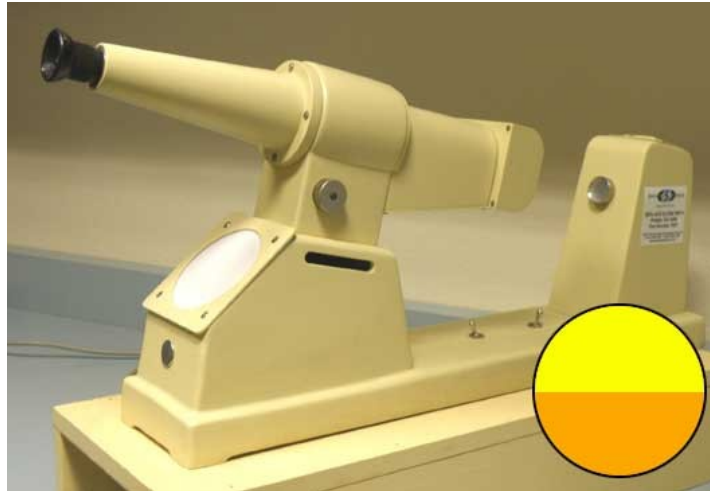
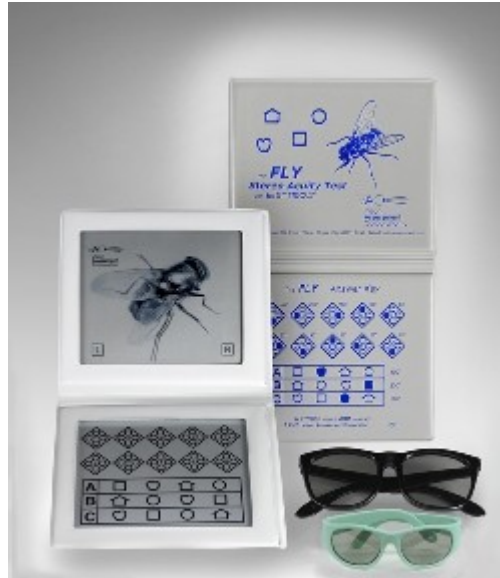


Image Source Page:
<http://www.colourmed.com/tests.html>



Color Vision Testing

- Documenting results:
 - Ishihara: # missed over # tested (14)
 - FALANT: Pass/Fail
 - D15, FM-100: Should include scoring sheets and provider documents interpretation of findings
 - Anomaloscope: Notation of findings and provider's interpretation



http://www.optomshop.co.uk/stereo_fly_test.htm 2/1/11

Sensorimotor Testing



Sensorimotor Testing - Potential Diagnoses

- ICD-9
 - 367.51: Paresis of accommodation
 - 367.52: Total or complete internal ophthalmoplegia
 - 367.53: Spasm of accommodation
 - 368.00: Amblyopia, unspecified
 - 368.01: Strabismic amblyopia
 - 368.02: Deprivation amblyopia
 - 368.2: Diplopia
 - 368.30: Binocular vision disorder, unspecified
 - 368.31: Suppression of binocular vision
 - 368.32: Simultaneous visual perception without fusion
 - 368.33: Fusion with defective stereopsis
 - 368.34: Abnormal retinal correspondence
 - 378.0x: Esotropia
 - 378.1x: Exotropia
 - 378.2x: Intermittent heterotropia
 - 378.3x: Other/unspecified heterotropia
 - 378.4x: Heterophoria
 - 378.5x: Paralytic strabismus
 - 378.6x: Mechanical Strabismus
 - 378.7x: Other specified strabismus
 - 378.8x: Other disorders of binocular eye movements
 - 378.9: Unspecified disorder of eye movements



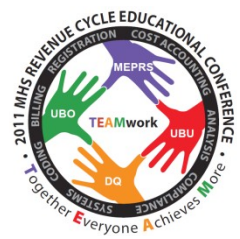
Sensorimotor Testing - Potential Diagnoses

- ICD-10
 - H50.0xxx: Esotropia
 - H50.1xxx: Exotropia
 - H50.2x: Vertical strabismus
 - H50.3xxx: Intermittent heterotropia
 - H50.4xxx: Other & unspecified heterotropia
 - H50.5xx: Heterophoria
 - H50.6xxx: Mechanical strabismus
 - H50.8xxx: Other specified strabismus
 - H50.9: Unspecified strabismus
 - H51.0: Palsy of conjugate gaze
 - H51.1x: Convergence insufficiency & excess
 - H51.2x: Internuclear ophthalmoplegia
 - H51.8: Other specified disorders of binocular movement
 - H51.9: Unspecified disorder of binocular movement
 - H53.0xx: Amblyopia
 - H53.2: Diplopia
 - H53.3x: Other and unspecified disorders of binocular vision



Sensorimotor Testing

- 92060: Sensorimotor examination with multiple measurements of ocular deviation (e.g., restrictive or paretic muscle with diplopia) with interpretation and report (separate procedure)
- A good definition for sensorimotor testing:
 - “multiple measurements of ocular deviations with interpretation and report. It includes measurement of ocular alignment in more than one field of gaze at distance and/or near (primary, up, down, left and right gaze) and inclusion of at least one appropriate sensory test in patients who are able to respond (Randot or Titmus test)”
 - <http://www.medrounds.org/ophthalmology-pearls/2009/09/cpt-code-92060-sensorimotor-examination.html>
1/27/11



Sensorimotor Testing

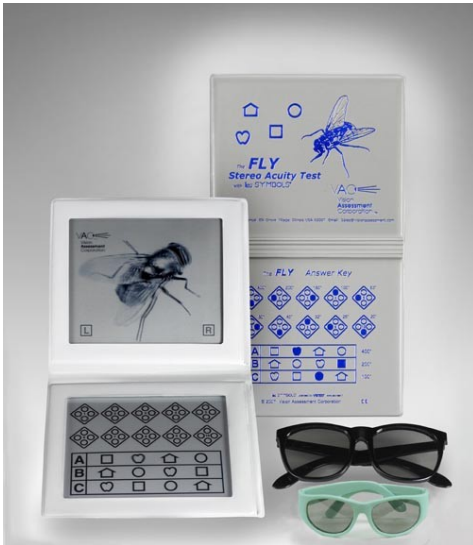


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<http://www.guldenophthalmics.com/ccp7/Stereo-Fly-Acuity-Test>

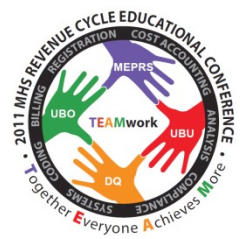


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<http://oftall-articulos.hazblog.com/Articulos-b1/Articulos->



Image Source Page:
<http://www.hakeem-sy.com/main/node/24238>



Sensorimotor Testing



Image Source Page:
<http://students.cis.uab.edu/alj1013/OcularMotility.html>
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Image Source Page:
<http://www.mrcophth.com/finalmrcophthmcqss/41.html>
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Sensorimotor Testing

- Documenting sensorimotor testing
 - Randot _/10
 - Maddox 10 [△] RH'
 - "Tic-tac-toe" format representing different fields of gaze
 - Number of rings or wings on Titmus test correctly observed
 - Worth 4 dot - which lights were observed
 - Cover/uncover test results

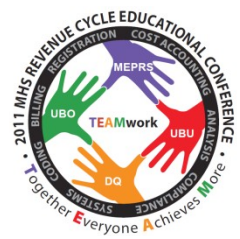


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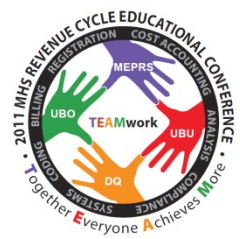
<http://www.urmc.rochester.edu/eye-institute/lasik/technology/orbscan-corneal-topographer.cfm>
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Corneal Topography



Corneal Topography

- 92025: Computerized corneal topography, unilateral or bilateral, with interpretation and report
 - (Do not report 92025 in conjunction with 65710 – 65771)
 - (92025 is not used for manual keratoscopy, which is part of a single system Evaluation and Management or ophthalmological service)
- Documentation Tips:
 - Computerized printout
 - Provider's findings/interpretation of printout
 - Test reliability



Corneal Topography - Potential Diagnoses

- ICD-9

- 370.0x: Corneal Ulcer
- 371.2x: Corneal edema
- 371.3x: Changes of corneal membranes
- 371.4x: Corneal degenerations
- 371.5x: Hereditary corneal dystrophies
- 371.6x: Keratoconus
- 371.7x: Other corneal deformities
- 371.8x: Other corneal disorders

- ICD-10

- H18.1x: Bullous keratopathy
- H18.2xx: Other & unspecified corneal edema
- H18.3xx: Changes of corneal membranes
- H18.4xx: Corneal degeneration
- H18.5xx: Hereditary corneal dystrophies
- H18.6xx: Keratoconus
- H18.7xx: Other and unspecified corneal deformities
- H18.8xx: Other specified disorders of cornea

Corneal Topography

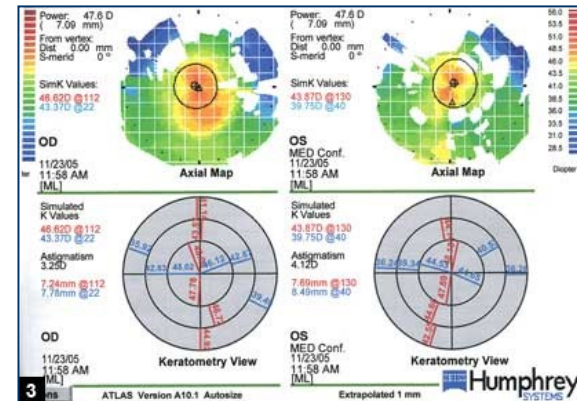
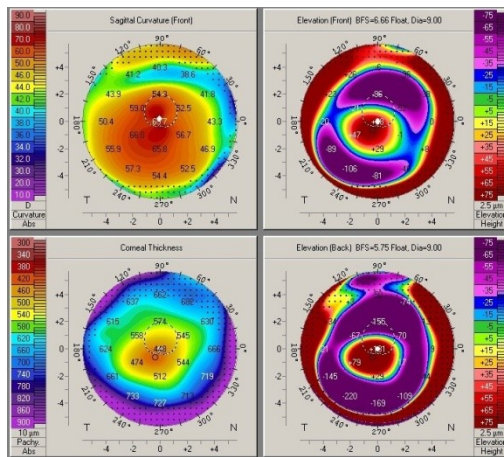
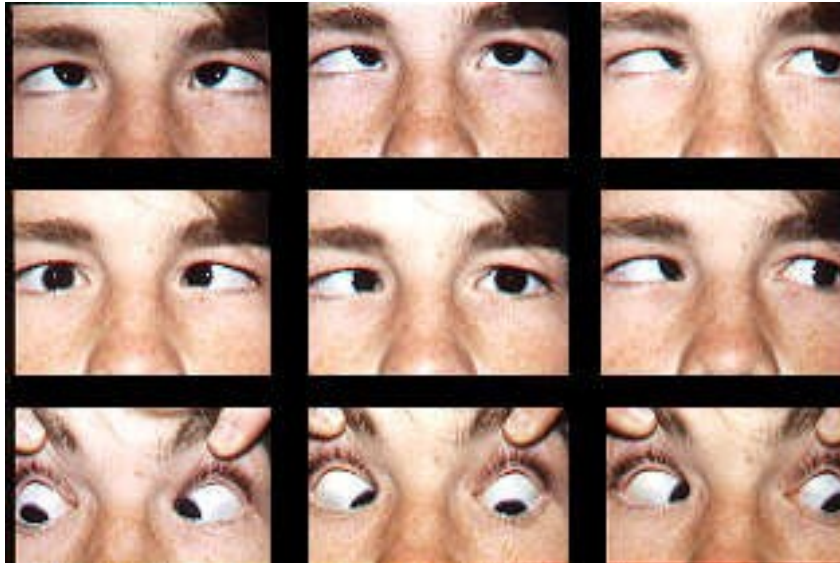


Image Source Page: <http://eyewiki.aao.org/Keratoconus>
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<http://www.osnsupersite.com/view.asp?rid=17873>
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<http://www.opsweb.org/OpPhoto/Extern/Motility/Motility2.htm>

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Ocular Photography



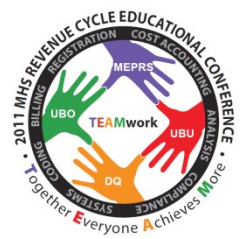
Ocular Photography

- Codes:

- 92250: Fundus photography with interpretation and report
- 92285: External ocular photography with interpretation and report for documentation of medical progress (e.g., close-up photography, slit lamp photography, gonioscopy, stereo-photography)
- 92286: Special anterior segment photography with interpretation and report; with specular endothelial microscopy and cell count

- Documenting interpretation/report

- Photos included
- Noteworthy findings, changes from previous exam, etc.



Ocular Photography

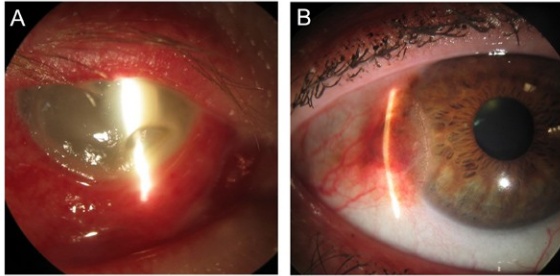


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<http://emedicine.medscape.com/article/1228681-overview>

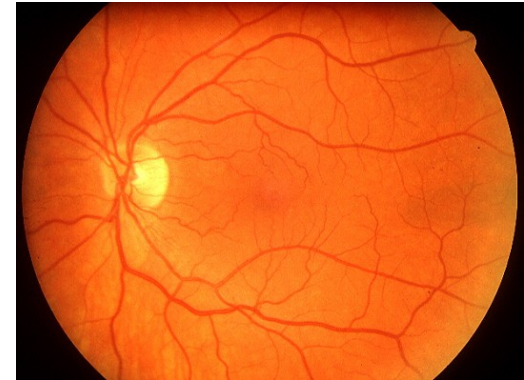


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<http://www.jhu.edu/wctb/coms/patient/photog/fundus1a.htm>

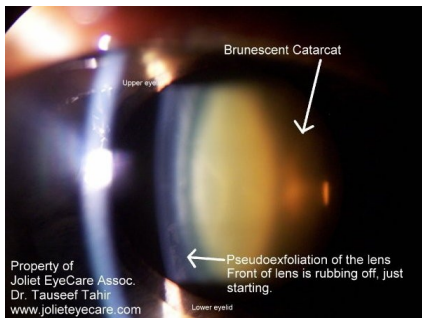


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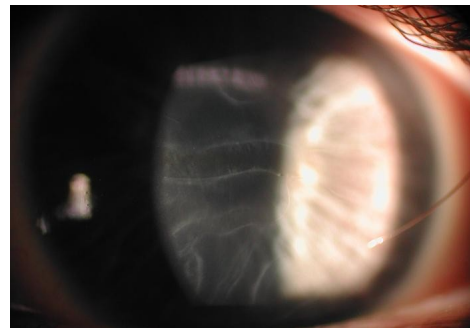


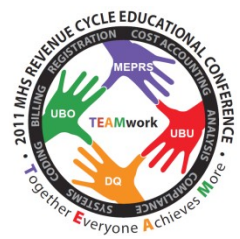
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[http://www.bing.com/images/search?](http://www.bing.com/images/search?q=Extended+ophthalmoscopy&view=detail&id=113F006C37D09B0BE513A1E73C355E10C0211091&first=1&FORM=IDFRIR)

[q=Extended+ophthalmoscopy&view=detail&id=113F006C37D09B0BE513A1E73C355E10C0211091&first=1&FORM=IDFRIR](http://www.bing.com/images/search?q=Extended+ophthalmoscopy&view=detail&id=113F006C37D09B0BE513A1E73C355E10C0211091&first=1&FORM=IDFRIR) 1/27/11

Extended Ophthalmoscopy



Extended Ophthalmoscopy

- 92225: Ophthalmoscopy, extended, with retinal drawing (e.g., for retinal detachment, melanoma), with interpretation and report, initial
- 99226: Ophthalmoscopy, extended, with retinal drawing (e.g., for retinal detachment, melanoma), with interpretation and report, subsequent



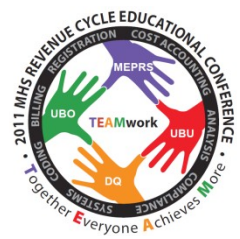
Extended Ophthalmoscopy

- **6.12.8.1. Ophthalmoscopy**

- Extended (92225) and subsequent (92226) ophthalmoscopy are considered reasonable and necessary services for evaluation of tumors of the retina and choroid (the tumor may be too peripheral for an accurate photograph), retinal tears, detachments, hemorrhages, exudative detachments, and retinal defects without detachment, as well as other ocular defects when the patient's medical record meets the documentation requirements set forth in this policy. These codes are reserved for the meticulous evaluation of the eye and detailed documentation of a severe ophthalmologic problem when photography is not adequate or appropriate

- **6.12.8.2. Frequency of Service**

- Frequency for providing these services depends on the medical necessity of each patient and this, of course, relates to the diagnosis. A serious retinal condition must exist or be suspected, based on routine ophthalmoscopy, which requires further detailed study



Extended Ophthalmoscopy

- **6.12.8.3. Medical Necessity**
 - In all instances, extended ophthalmoscopy must be medically necessary. It must add information not available from the standard evaluation services or information that will demonstrably affect the treatment plan. It is not medically necessary, for example, to confirm information already available by other means

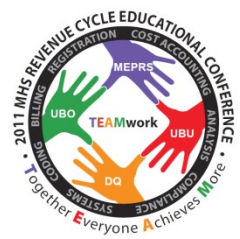


Extended Ophthalmoscopy

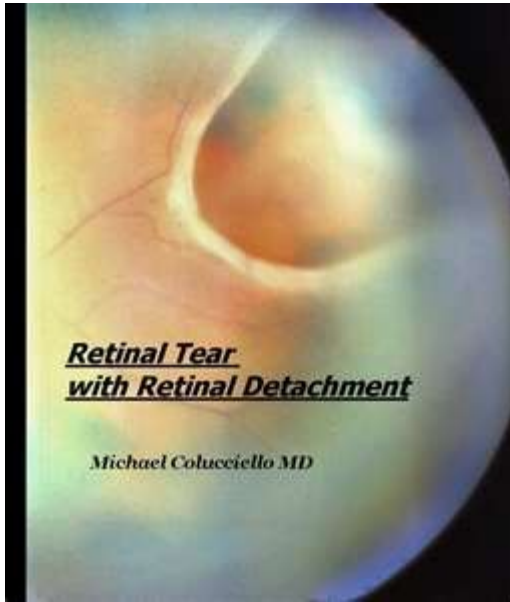
- **6.12.8.4. Major Criteria**

- These criteria must be met:

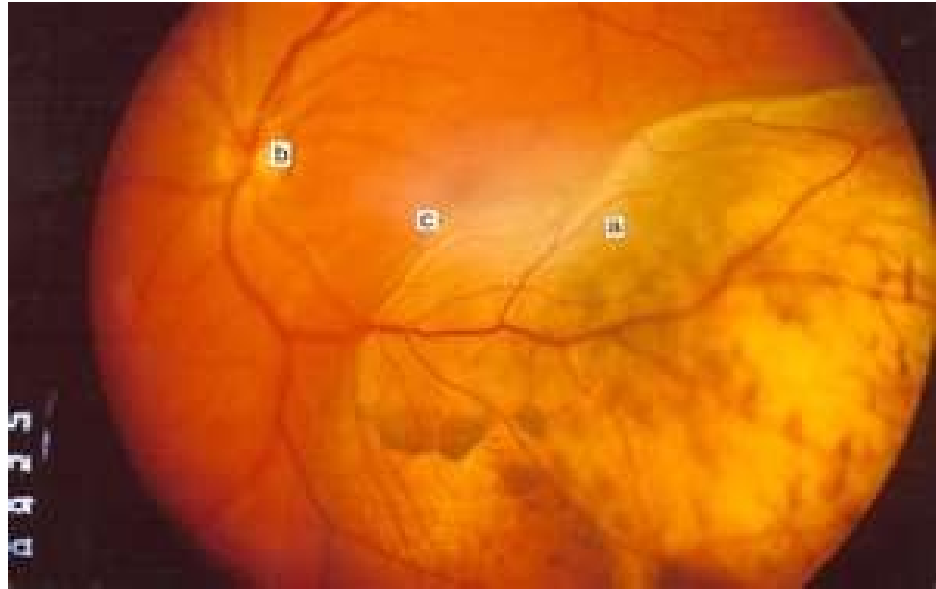
- A serious retinal condition is present based on ophthalmoscopy, which requires further study, such as the detailed study of pre-retinal membrane, a retinal tear detachment, a suspected retinal tear with sudden onset of symptomatic floaters or vitreous hemorrhage
 - Another diagnostic technique in addition to routine direct and indirect ophthalmoscopy is necessary and documented; for example 360° scleral depressions, fundus contact lens, or 90-diopter lens
 - The technique and findings of the extended ophthalmoscopy must be documented, including a three-dimensional representation or an extended colored retinal drawing. Sketches and templates are not acceptable. The documentation of follow-up services (92226) must include an assessment of the change from previous examinations
 - Documentation supporting the medical necessity of this item, such as ICD-9 codes, must be submitted with each encounter



Extended Ophthalmoscopy



<http://www.bing.com/images/search?q=retinal+detachment&qprt=retinal+detachment&FORM=Z7FD2> 1/27/11



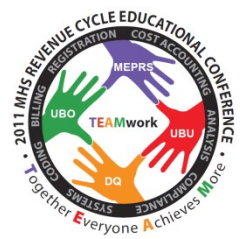
<http://www.bing.com/images/search?q=retinal+melanoma&view=detail&id=3348FCFEF8E58213ECC22D72FF8653EB07D19633&first=1&FORM=IDFR> IR 1/27/11



Extended Ophthalmoscopy



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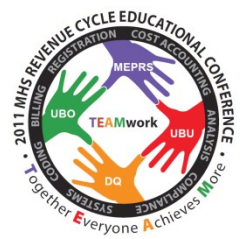


Reminder...

“If it’s not documented; it wasn’t done.”

NOT CODEABLE

Questions???



References

- CPT® 2011 Professional Edition, American Medical Association
- ICD-9,
- ICD-10
- MHS Coding Guidelines, 2011